

**Queens Borough Public Library  
WIRELINE COMPETITION BUREAU APPLICATION  
FOR THE E-RATE DEPLOYED UBIQUITOUSLY (EDU) 2011 PILOT PROGRAM**

**WC Docket No. 10-222**

**Name & Location of the Library:**

Queens Borough Public Library – Central Library  
89-11 Merrick Blvd, Jamaica, NY 11432

**Website:** <http://www.queenslibrary.org>

**Library Map Link:** [Click Here](#)

**Billed Entity Number:** # 123813

**Complete list of the individual libraries that will be served:**

- 1) Central Library  
89-11 Merrick Blvd, Jamaica, NY 11432  
**Library Map Link:** [Click Here](#)
- 2) Arverne Community Library Branch  
312 Beach 54 Street, Arverne, NY 11692  
**Library Map Link:** [Click Here](#)
- 3) Long Island City Community Library Branch  
37-44 21 Street, Long Island City, NY 11101  
**Library Map Link:** [Click Here](#)
- 4) Flushing Community Library Branch  
41-17 Main Street, Flushing, NY 11355  
**Library Map Link:** [Click Here](#)
- 5) Court Square Community Library Branch  
2501 Jackson Avenue, NY 11101-5095  
**Library Map Link:** [Click Here](#)

### **About The Queens Borough Public Library**

The Queens Borough Public Library (QBPL) is one of the largest library systems in the nation, serving 2.2 million people in the borough of Queens, New York. QBPL is a non-profit library system with one Central Library, 61 community libraries, 7 Adult Learning Centers, and 2 Family Literacy Centers. It has circulated among the highest number of books and other library materials in the country since 1994, and is the second largest public library in the U.S. in terms of size of collections.

- In Fiscal Year 2009, 23 million items were circulated.
- In Fiscal Year 2009, in-person attendance was 14.7 million people.
- In Fiscal Year 2009, 3.4 million people visited QBPL electronically.
- Some 595,000 people attended more than 30,000 free programs in FY 09.
- Staff answered 11.4 million reference and directional inquiries in FY 09.
- Queens Library has more than 7.1 million items in its collections.
- There were 857,500 active borrowers in FY 2009.
- More than 3,000 students attended structured classes in English for Speakers of Other Languages in FY 2008. Thousands more used the Adult Learning Centers for self-study and English conversation practice.

QBPL presented nearly 28,000 free educational, cultural and literary programs in FY 2008. They included arts and multi-cultural performances; ethnic celebrations; informational programs (health, business, financial, career counseling, computer skills, and toddler learning, and young adult programs. QBPL has workshops for immigrants dealing with how to adjust to life in the U.S. (immigration law, healthcare, paying for college education etc.). Other programs are: Outreach and Special Services, Mail-A-Book Service, Adaptive Services For The Physically Challenged.

The Library serves customers of all skill levels, from those learning to read to those conducting doctoral research and all of those in-between. The Library seeks to provide quality services, resources, and lifelong learning opportunities through books and a variety of other materials.

- Languages Other Than English - provides books and materials in over 60 languages
- Cyber Center - provides Internet access and resources of the library.
- Job Information Center - Provides references for job search info, & educational resources.
- Consumer Health Information - helps patrons make informed healthcare choices
- BOOST (Best Out of School Time) Program - After-school homework help and recreation for children ages 5 to 12 is given at all library locations.
- Summer Reading Clubs - Every library location holds Summer Reading Clubs for children and young adults, to encourage reading and keep literacy skills sharp during the school hiatus.

**Project Description:**

The Queens Borough Public Library (QBPL) proposes to expand the wireless accessibility of its main Central Library and four other of its community library branches (Arverne, Long Island City, Court Square and Flushing). This will not only increase Internet accessibility, but also availability to the Library's resources for neighborhoods in Queens, NY in the highest poverty areas. The project will serve over 1,200 new weekly users, providing 2,500 additional hours of use (10 hrs per user) per week outside of regular library hours. It will also offer an array of new resources for trans-literacy, digital literacy, employment support, and other critical services.

**(1) the financial need of the school or library, including any additional budgetary hardships, notwithstanding the school or library's current discount rate;**

Although QBPL is a separate non-profit library system, it receives the majority of its operating expenses from the City of New York. In FY 2008, total support was \$127.6 million: City of New York (82%); New York State and Federal governments, as well as contributions and private sources (18%). Due to the financial crisis, NYC cut support to QBPL by \$27 million dollars, with another proposed cut of \$4.5 million dollar in January 2011. While the library has had a 21% decrease in funding, there has been a 47% increase in customers utilizing library services. This significant blow to the Library affects its patrons by forcing it to cut hours, resources and staff. This depletion of services also includes access to the internet for many of the Library's constituents.

In the City's economic downturn, where 9% of the population is unemployed, the library is the only place that they can get internet services as well as resources for a job search. So QBPL would like to provide access to internet to the public, outside regular library hours, allowing for library patrons and those in poverty areas to continue using the libraries resources.

The Public Computer Centers at the Library allows library cardholders 15 min to one hour for internet access, which are called "sessions". From December 2009 to December 2010, the number of recorded PC sessions at all QBPL computer centers is 2,855,296 sessions and 1,203,594 hrs, per year. The amount of wireless laptops is 600 sessions per day and an estimate of 200,000 sessions per year. Each of the selected sites a similar ratio of sessions and user hours.

- Central Library - 322,363 sessions and 177,541 hrs per year
- Flushing - 502,410 sessions and 174,959 hrs per year
- Arverne - 21,707 sessions and 7,563 hrs per year
- Court Square - 32,767 sessions and 11,109 hrs per year
- Long Island City - 56,159 - sessions and 27,405 hrs per year

**the nature of the Applicant Wireless Program, including the extent to which the use of connectivity is interactive and utilizes the Internet,**

The Queens Borough Public Library (QBPL) proposes to invest in the creation of a wireless mesh, serving low-income and high density areas that surround five local community libraries (Arverne, Flushing, Court Square, Long Island City and Central Library), based upon the current Wi-Fi 802.11 standards. This program is designed to be a model, working with partners versed in local broadband needs to deploy an array of solutions to meet the interconnected challenges faced by low-income.

QBPL has researched several companies that have developed technology that extends the indoor wireless hotspots into an outdoor service that can provide wireless access over large areas and can be scaled to provide coverage from a wireless “web mesh” effect and can be grown as needed. By deploying Wi-Fi access points at each library location, large surrounding open air areas can be quickly served at low cost.

Once the Wi-Fi access points units have been installed, they create a self-organizing and self-healing wireless mesh. While some of the units will require a high capacity connection to the Internet, most units will only require access to a power source that can be readily obtained from the existing street or traffic light. Anywhere from 4 to 12 units will be needed per square mile depending upon topography and the built environment which may require additional access points to act as repeaters. Deployment is both quick and economical and wireless access is available as soon as each unit is placed in service. Wireless access can be rolled out as units are mounted and installed at the library. Additional costs will be incurred to provide a connection to the Internet for some of the units, for filtering and security.

Once a library wireless network has been fully deployed, the goal will be to provide some level of free wireless Internet access to everyone living, working or visiting in the borough that has a library card. It is anticipated that some end-user services will have to be organized with vendors and or other community organizations to help provide end-user equipment for those that can not afford to purchase computers on their own.

In order to monitor usage and understand the effectiveness of the pilot, all users will have to have a current QBPL library card to access the wireless connection. QBPL will work with surrounding community boards and organizations to disseminate information about the additional services in just the five areas mentioned in this grant. That way as the pilot is monitored, the other phases of the project can be materialized across the remaining QBPL community branches.

Overall, each of the five locations will not cover more than 500ft from the library(s) roof, as we deploy additional access points/repeaters the coverage can grow. As the pilot is tested and data is gathered on usage recommendations will be made by the network consultant for how QBPL can expand the wireless mesh to accommodate a larger scope.

There are three distinct groups that will gain from this type of access; area community groups, transient users, and residents of public housing (best efforts). This will affect each group differently, but benefit them equally. One major benefit for all is that they will be able to have

wireless access during the hours that the library is closed. Currently, broadband connection is not available if the library is closed.

Due to budget cuts some of the community libraries will have to close at least two-three days a week. In order to soften the affect of this on the areas with great need, QBPL will outreach to local community groups in the areas of dense poverty (Arverne and Long Island City) that have computer resources and work directly with the population that the library seeks to assist. Through other partnership programs, QBPL will depend on these community groups in order to provide end-user resources (laptops and desktops) when the library is not opened.

Transient users will benefit from this service, as the number of smartphones and other mobile devices increase. For those patrons at the Court Square that may be going on a lunch break from the office or leaving the court house, wireless services can help them check on email or even a job interview appointment, where they are not allowed to otherwise. Additionally, the local parks and surrounding areas of the library will be accessible for those that are outdoors with a laptop or at a near by window. For students that have mobile devices or laptops this will service them as a way to complete assignments after school access has been shut down.

As a pilot Arverne housing projects will have access for some of their buildings. As a relationship is built with the New York Housing Authorities and success of the pilot is seen, the end goal is to have all parts of Arverne housing projects wirelessly connected.

There are five phases to this project. Below is the overall Scope of Work for the first two phases of this project.

### **Wireless Mesh Communications Plan for the Queens Borough Public Library**

#### **Phase 1 – Plan, Document & Purchase**

- Plan Work and Purchase of Equipment
- Verification of mounting of locations on roof tops
- Plan Cabling and Electrical up to the roof & lightning suppression
- Plan Changes to Network/Firewall configurations to implement external wireless
- Create Documentation: maps & diagrams

#### **Phase 2 – Installation & configuration**

- Installation of mounting, electrical and cabling
- Installation of Security and Filter
- Update Network and Firewall to account for the new network as it comes online
- Install self-healing, self-repeaters multi- antenna devices
- Test security to other networks, firewall, security device and filter

#### **Phase 3 – Testing & Verification**

- Test range of signal, adjust and map out signal
- Verify filter and security access in field.

- Create documentation for Training for both Staff and Customers

#### **Phase 4 – Train Staff & Helpdesk**

- Test training material and train the Trainers/Helpdesks
- Update training material based on initial sessions
- Schedule and training first 5 locations and then more to entire staff

#### **Phase 5 – Print document & Update Web**

- Release to Public: 1 building at a time
- Evaluate access, sessions and security
- Update all documentation.

The long-term vision of the wireless mesh plan is to expand this pilot to serve all of QBPL's community libraries so that its patrons can have wireless connectivity 24/7 and access vital library resources. Below are the final two phases that will complete the wireless mesh for all of

**The Wireless Program has been in operation and the mobile wireless device(s) being used,**

In 2007, there was a study done for this project, by Wireless-Nets, a network consulting company, to measure and record RF signals in the license-free frequency bands (2.4-2.5GHz and 5-6GHz) and observe line-of-sight capabilities at each of 63 Queens Library building roof-tops throughout the Queens, New York area. Wireless-Nets delivered a report that provided an analysis of the data collected and recommendations for optimum technology, equipment, and frequencies for satisfying requirements.

Due to funding constraints the process of completing the project was postponed until funds became available. However, research on products for the project and a contract with the network consultant group, Wireless-Nets keeps the project alive until adequate funding retained.

The Consultant for this project is James T. Geier. He is the founder of Wireless-Nets, Ltd. and the company's principal consultant. He has been working on this project since its initial inception will remain on the project as a consultant for all the installation and equipment purchases. He will be responsible for making recommendations on every aspect of this project. He will also train QBPL IT staff on how to maintain the wireless mesh system. The cost for his services will be \$32,500 (cost includes all services, travel and related expenses)

He has 25 years of experience in network analysis, design, software development, installation, and support of numerous wireless network-based systems for municipalities, enterprises, airports, homes, retail stores, manufacturing facilities, warehouses, and hospitals worldwide. Mr Geier is the author of several books, including *Deploying Voice over Wireless LANs* (Cisco Press), *Wireless LANs* (SAMS), *Wireless Networks – First Step* (Cisco Press), *Wireless Networking Handbook* (Macmillan), and *Network Reengineering* (McGraw-Hill). He is the author of numerous tutorials for [www.Wi-FiPlanet.com](http://www.Wi-FiPlanet.com) and other publications. Jim has been active within the Wi-Fi Alliance, responsible for certifying interoperability of 802.11 (Wi-Fi) wireless

LANs. He has also been an active member of the IEEE 802.11 Working Group, responsible for developing international standards for wireless LANs. He served as Chairman of the IEEE Computer Society, Dayton Section, and Chairman of the IEEE International Conference on Wireless LAN Implementation. Jim is an advisory board member of several leading wireless LAN companies. Jim's education includes a bachelor's and master's degree in electrical engineering and a master's degree in business administration.

a description of any technical issues associated with implementing the Applicant Wireless Program, including an analysis of any problems with the availability of wireless access to students or patrons off the school or library premises and how those issues are being or will be addressed by the school or library,

Some of the issues that have come up on the wireless mesh have had good discussions on how to solve connectivity for the public.

For QBPL, broadband connection speeds will be increased at its Arverne Community Library (ACL) and Long Island City Library (LICL). At the ACL, the existing frame relay circuit will be replaced with a fiber Ethernet circuit. Installation and configuration of this fiber connection will involve Verizon construction external to the building. The upgrade of two of the present fiber circuits at FRCL and LICL will involve the reconfiguration of existing circuits by Verizon.

The Wireless networks that will be used will be from Meraki, Inc., which uses cloud computing to make enterprise-class wireless networks that are easy to deploy and manage. With intelligent, plug-and-play access points that are centrally managed over the web, Meraki networks are simpler, higher performance, and lower cost than traditional wireless networks.

Although the range of an average laptop can only go up to 150 feet to reach the QBPL network, using the Meraki access point/repeater will allow users to bounce signals to other users. This will not only extend their range, but extending the range for their neighbors as well. This is one of the advantages of using a wireless mesh system. Any laptop can provide access for a nearby user. The more users that use the network, the bigger the network grows. The access point/repeaters are the size of a computer mouse.

In Arverne, there are seven buildings on the grounds directly across the street from the Arverne Library, but only the front of the closest three buildings will be able to get access from the configuration (about 120 units). The Arverne Library will have roof top access points to support the front apartment units of the building directly across the street of the branch (50ft away); these access points will also support the closet apartment units of the next two buildings down the street facing the library roof top. In addition, you'll need multiple access points inside/windows of each building to distribute the signals. This pilot will help the needs of the area and will be done without having to install poles or mount any equipment on the housing project roofs or grounds.

Flushing – For this area, we'll mount access points on the roof-top of the building and in the windows of the facility to cover the adjacent library plaza and bus stops on the four street corners. Which should enable to mesh together and connect to the library network and out to the internet. This will provide the area with internet access and as we grow the access other non-profits could extent the network further into the community and spread the signal further. Similar configurations will be used for Court Square, Central and LI City.

QBPL can either mount the mesh nodes on existing light poles, assuming that they have a light sensor on each pole (for turning the light on and off). An electrical adapter used with this type of pole allows the light on the pole to go off in the daylight and still allow the mesh node to be powered. If the light poles are bank switched (all electrical power to the poles shut off during the daytime), then the light poles will not provide power to the mesh node during the day unless rather expensive modifications are done (light sensors installed on each pole). As an alternative to using light poles, you could mount the mesh nodes on the buildings (in strategic locations) so that coverage outdoors is optimum.

what training has been or will be provided to teachers, librarians, students or parents to implement the Applicant Wireless Program, and

The Library has always created a train-the-trainer program to implement and train their staff for new software and programs. During this wireless project training material and staff will be trained, as the equipment is being installed and configured. This will also allowing them to test, evaluate the security /access, check filters for quality control and test reliability. As we are ready to go live the staff at the Helpdesk and the Branches will be trained and given instructions on how to support the users and answer questions. Who to go to, material to printer from the internet and contact information for support.

the extent to which the Applicant Wireless Program is integrated with federal, Tribal, state, regional or local governmental or non-profit initiatives to achieve educational or community access outcomes;

Queens Library has capital funds, which can be reallocated to support the grant if funds were to become available. The Queens Library has staff that have worked with Wireless bridges and repeaters for the last 10 years which is on three site today and have support all the internet wireless access at all 63 branch locations and supports an estimate 200,000 sessions yearly, 600 users daily.

the poverty level based on the percentage of students eligible for a free or reduced-price lunch under the national school lunch program (NSLP) or a federally approved alternative mechanism, and the current discount rate of the school or library;

In 2006/7, New York City rigorously analyzed broadband deployment and adoption across its population in its Broadband Needs Assessment Study. Results from this effort indicated that broadband is available to City residents in their neighborhoods, with a residential adoption rate stood at approximately 52% – a rate above the national average of 47%, although comparable



to that of other US urban areas. Moreover, the capacity and speed of New York's networks was found to be on par with those of other American cities.

However, the City's Study found that broadband adoption gap between low-income and moderate- to high-income households was found to be approximately 28% as of 2006/7. The reasons identified for this lag include the cost of broadband service, the absence of digital literacy skills, and a failure to perceive value in broadband adoption - obstacles that were often faced simultaneously. Additionally, the Study projected that without intervention by 2012 the adoption gap in the City would continue to exceed 20%.

In a city where the number of low-income households exceeds the total number of households in almost every other City, this disparity demands action. There can be no dispute that any solution that lifts these families out of poverty will include education in the use of basic technology tools.

To address this issue, QBPL is making critical enhancements to its public computer centers in the City's low-income communities. The program invests in the highest poverty areas in each of its community branches, targeting neighborhoods such as Arverne and Long Island City as well as highly used branches (i.e. Flushing, Central, and Court Square) to provide public broadband access to its most vulnerable populations.

In these five areas, library patrons are on average 23.2% below the federal poverty line. In the 2008 school year, 8<sup>th</sup> graders had a median of about 48% of proficiency in English Language Arts and about 45% proficiency in Math (NYC 2007 Accountability Report). This is below the city rate of 54% for English Language Arts and 58% for Math. At many of the selected neighborhoods (Arverne, Central, Flushing, and Long Island City), 80% of students qualify for free or reduced lunch and the majority of students come from households where parents receive public assistance.

According to the 2007 Annual Drop Out Rate Report, by the NYC Department of Education, Arverne/Far Rockaway has the highest drop out rate in Queens County (11.7%) and Long Island City has the 2nd highest (9.8%); vs. 4.9% for the region and 6.6% citywide. LIC/ Arverne/Far Rockaway both have the largest population of youth residing at Riker's Island (jail for NYC offenders), based on 2007 figures from the Vera Institute for Justice. About 20% of youth 16-19 housed at the Riker's Island Correctional Facility, are from these areas (one of target areas of this proposal). This coupled with the poverty rates, has had a dramatically negative impact on the education and behavior of students and young adults in Queens.

Students at the schools in these communities are in families that are on some form of government assistance or minimally above the poverty level. At P.S. 111, 91% of students qualify for free or reduced lunch and 84% of students at M.S. 53. Both schools serve a high percentage of minorities (P.S. 105 - 66% Black & 30% Hispanic; M.S.53 - 62% Black & 34% Hispanics). The majority of students come from households where parents receive public

assistance (74% at M.S. 53 and 91% at P.S. 111), from the 2006-2007 N.Y.C. Comprehensive Information Report.

all costs, including those eligible for E-rate support and those not eligible for E-rate support, associated with implementing the Applicant Wireless Program, including but not limited to costs for equipment such as e-readers or laptops, access and connection charges, teacher training, librarian training, or student/parent training;

All of the locations in the pilot are 80% eligible under priority 2 & 77% eligible under priority 1. The total cost for this project is \$855,618 (see attached).

the committed school or library resources available to implement the entire Applicant Wireless Program, including whether those funds are from the school or library's general budget or from an outside funding source;

Queens Library has capital funds, which can be reallocated to support the pilot if funds were to become available. The additional resources will come from its operating expenses and city capital operating funds for the library. Additionally, this grant will be offset by potential capital grant.

Effect of EDU2011 Support for off-premise connectivity for library's projects;

With the recent budget city budget cuts, the Library is faced with cutting services to its patrons by cutting library from 6 days a week to possibly 3 days a week. Therefore, the effect of being able to provide uninterrupted internet access for the community will be tremendous and invaluable to those that would otherwise have no access at all.

Analysis of the Cost-Effectiveness of the Current or Planned Applicant Wireless Program

Because the library is not open to the public late at the night and early morning hours and with the shrinking budgets the city, QBPL will be faced with limiting the openings of many of its locations. The installation of these types of networks will help support the communities even if our doors are closed.

Description of the specific measures taken, or that will be taken, to ensure compliance with the Children's Internet Protection Act and measures to protect against waste, fraud, and abuse; and

QBPL currently use 8E6 filters to filter traffic and will do the same for the external wireless. Today QBPL have a Filter in place to filter "all" traffic to the internet; it is centrally located in the Central Library. We have software on all our PC's to support the log in and evaluate the birth date of the customer given them limited access to stay CIPA compliant and those customers that are of age will have the ability to turn off the filter for research as needed.

The Library expects to further expand the policy to cover the external use of the internet and we will have a filter to stay CIPA compliant as we are today. (see below QBPL internet policy)

Description of internal policies and enforcement procedures governing acceptable use of the wireless devices used in the Program off library's premises.

## INTERNET POLICY

Below is the current Internet policy in place. However, we are looking to revise these policies to include wireless mesh usage outside the library.

To login, the users will have to use their Library card number and pin number. Teens and children should have their birth date stored in the QBPL data file. If they are under 17 or don't have a birth date on file, they will stay blocked from any site that is deemed inappropriate by preset filters. When a filter blocks a user and they feel that the site should be unblocked or should be blocked; they have the ability to fill in an online form to have the site reviewed by the Librarian staff and unblocked/blocked as needed. Only users who are 17 years of age or older will be allowed to unblock their station.

QBPL Internet Policy - link to our site with internet policy  
[http://queenslibrary.org/index.aspx?page\\_id=12](http://queenslibrary.org/index.aspx?page_id=12)

## QUEENS BOROUGH PUBLIC LIBRARY - INTERNET POLICY

**Terms Of Use** - PLEASE READ THESE TERMS OF USE ("TERMS") CAREFULLY BEFORE ACCESSING OR PARTICIPATING IN ANY ON-LINE FORUM AVAILABLE AT QUEENSLIBRARY.ORG OR OTHER QBPL WEBSITES. BY USING AND PARTICIPATING IN THESE WEBSITES, YOU SIGNIFY THAT YOU HAVE READ THESE TERMS AND AGREE TO BE BOUND BY AND COMPLY WITH THEM. IF YOU DO NOT AGREE TO BE BOUND BY THESE TERMS, PLEASE DO NOT USE QBPL WEBSITES.

**Public Use of the Internet** - (see also Guidelines for Public Use of Queens Library InfoLinQ™) To fulfill its mission -- of providing quality services, resources and lifelong learning opportunities through books and a variety of other formats to meet the informational, educational, cultural and recreational needs and interests of its diverse and changing population -- the Queens Borough Public Library provides access to Internet resources. The Internet offers access to many valuable local, national and international sources of information. However, some information found on the Internet may be inaccurate, incomplete, dated, or offensive to some individuals. A good information consumer must evaluate the validity and appropriateness of information found.

**Choosing and Evaluating Sources** - The Internet is a series of communication linkages leading to a highly diverse array of information content. Library patrons use it at their own risk. In choosing sources to link to from its home pages, the Library follows its materials selection guidelines. Beyond this, the Library is not responsible for the content of the Internet, changes in content of the sources to which the Library home pages link, or for the content of sources accessed through secondary links. In an effort to assist its users, the Library has created web sites for the general population, for teens and for children to help guide them to sources that are accurate, complete and current and that provide them with a wealth of information on the

local, national and global level. In addition, the Library provides training for members of the public to assist them in using the Internet in a safe, effective and efficient manner.

**Children's Internet Protection Act (CIPA)** - The Library complies with the Children's Internet Protection Act which requires the Library to have a policy that includes the operation of a technology protection measure, i.e. software filters, during the use of Library computers to access the Internet. CIPA defines minors as individuals under the age of 17.

1. In the case of minors, the technology protection measure is designed to prevent access to visual depictions that are:
  1. obscene,
  2. child pornography, or,
  3. harmful to minors.
2. In the case of adults, the technology protection measure is designed to prevent access to visual depictions that are:
  1. obscene, or,
  2. child pornography

Adults can independently disable the technology protection measure, at their choice, any time they use a library computer. Dates of birth must be on file in the library's database to disable the technology protection measure. Those customers who do not have a date of birth on file and who wish unrestricted access to the Internet are required to provide proof of age. Users should bear in mind that, given the current state of technology, no technology protection measure manufacturer is able or willing to guarantee that its technology protection measure will block access to all visual depictions that are obscene, child pornography, or, in the case of minors, harmful to minors.

Notwithstanding the Library's use of a technology protection measure, users, and in the case of minors, their parents or guardians, are advised not to rely solely on the presence of a technology protection measure but to continue to exercise their own judgment in accessing information through the Internet. A technology protection measure may not block access to all materials a particular user, or in the case of minors, their parents or guardians, might consider inappropriate.

Overblocking and underblocking of Internet sites will be remedied by designated librarian staff. When a customer is blocked from an Internet site that they believe should not be blocked, or accesses a site that they believe should be blocked, the customer can select to report the site online so that the site can be reviewed by professional librarians. If the review determines that the site has been blocked in error, the block will be removed in the Library's database. If the review determines the site should have been blocked, the site may be subsequently blocked.

**Access by Minors** - Parents or legal guardians must assume responsibility for deciding which library resources are appropriate for their own children. Parents or legal guardians should guide their children in use of the Internet and inform them about materials they should not use. While the Library affirms and acknowledges the rights and responsibilities of parents and

guardians to monitor and determine their children's access to Library materials and resources, including those available through the Internet, the Library has taken certain measures designed to assist in the safe and effective use of these resources by all minors.

1. To address the issue of access by minors to inappropriate material on the Internet, including material that is harmful to minors, the Library:
  1. Develops and maintains special web sites for children and teens;
  2. Develops and provides training programs on safe and effective Internet use;
  3. Encourages staff to guide minors away from materials that may be inappropriate; and,
  4. Distributes a publication entitled "A Message to Parents: Surfing the Internet".
2. To address the issue of the safety and security of minors when using electronic mail, chat rooms and other forms of direct electronic communications, as well as the unauthorized disclosure, use and dissemination of personal identification information regarding minors, the Library provides training programs and also urges minors to keep in mind the following safety guidelines:
  1. Never give out identifying information such as home address, school name, or telephone number.
  2. Let parents or guardians decide whether personal information such as age, marital status, or financial information should be revealed.
  3. Never arrange a face to face meeting with someone via the computer without parents' or guardians' approval.
  4. Never respond to messages that are suggestive, obscene, threatening, or make one uncomfortable.
  5. Have parents or guardians report an incident to the National Center for Missing and Exploited Children at 1-800-843-5678 if one becomes aware of the transmission of child pornography.
  6. Remember that people online may not be who they say they are.
  7. Remember that everything one reads may not be true.
3. To address the issue of unauthorized access, including so called "hacking," and other unlawful activities by minors online, minors and all other Library users are hereby advised that use of the Library's computers for hacking or any other unlawful activity is strictly prohibited.

**Rules Governing Use** - Due to the limited resources available for provision of public access to the Internet, the Library may set limits, for example, on use of large files of still or moving images or sound, or on downloading files in any medium. The Library also reserves the right to limit the amount of time an individual user can devote to a single session. The public must comply with all applicable federal, state and local laws, including laws governing the transmission and dissemination of information while accessing the Internet.

Users may not:

- Use the network to make unauthorized entry into other computational, informational or communication services or resources.
- Distribute unsolicited advertising.
- Invade the privacy of others.

- Make any attempt to damage computer equipment or software.
- Engage in any activity that is harassing or defamatory.
- Use the Internet for any illegal activity, including violation of copyright or other rights of third parties, or in a manner inconsistent with the Library's tax exempt status or its proper operation.

Violations may result in loss of access to Library computers and/or Library privileges. Unlawful activities will be addressed in an appropriate manner.

**Public Users' Security** - Users should be aware that the Internet is not a secure medium and that third parties may be able to obtain information regarding users' activities. However, The Queens Borough Public Library will not release information on the use of specific Internet resources by members of the public except as required by law or necessary for the proper operation of the Library.

**Compliance** - The Library reserves the right to take appropriate action to insure compliance with this policy.

**Guidelines on Access to Information** - The Queens Borough Public Library is guided by the following American Library Association statements on access to information:

- The Library Bill of Rights
- Freedom to Read Statement
- Interpretation of the Library Bill of Rights: Free Access to Libraries for Minors and Access to Electronic Information Services and Resources

In general, the Library is guided by a commitment to provide free and open access to information, and policies that provide appropriate protections to its patrons, while being consistent with the Library's longstanding commitment to the principles of free expression as set forth in the First Amendment to the United States Constitution.

**Policy Subject to Revision** - This policy may be revised from time to time.

**Policy & Procedures Section D#23 - Last updated: May 2008**

Description of how the program facilitates access in the community to needed services, such as governmental services, job training, online learning opportunities, and any other community services.

For the libraries, QBPL typically restricts customers at its Central Library Cyber Center often limit customers to 1 hour/day. This project will expand the library hours for 24/7 access and open its online resources for the more than 70 languages spoken in the library's targeted neighborhoods, low literacy rates (18% read below a 4th grade level), higher than average unemployment rates (13%-22%) and high school dropout rates (12%).

The Queens Borough Public Library is one of the top public libraries providing information in the area of Job Information. For the past 5 years, QBPL has had a Community Associate based in the

Jamaica One-Stop program office, as part of our Adult Literacy-Workforce Investment Act grant. The Jamaica One-Stop of the NYS Dept of Labor is three blocks from the Central Library and the Long Island City Library has one of the only Literacy Zone programs that assists low-income families with literacy and other services.

The Library recently received a grant from the New York State Department of Labor to provide training of staff, through *NY Wired for Education* (NY Wired), a leading on-line education provider to the New York State Department of Labor. NY Wired has trained QBPL staff to assist customers in accessing job information sites and social networking sites online throughout its 63 libraries in Queens County. This benefits Queens residents, by fulfilling their computer literacy and job information needs at a local library that is conveniently located within 1 mile or less of their home. It is an additional benefit for library customers, who may visit a community library about 3 times a week for books, CDs, DVDs, computer access and programs.

The libraries will administer workforce development trainings to provide career guidance and connect unemployed residents to financial literacy information. The libraries will also leverage existing partnerships with trusted sources, including Community Tech Workers and Local Workforce 1, to develop joint programming for this population. Partners will develop marketing in various languages specific to these communities and will advertise through ethnic newspapers and flyers. Further, there will be an offering of an array of programs to meet the needs of these vulnerable populations, including Spanish-language technology and employment workshops, Rosetta Stone services and ESL classes.

Course offerings will include modules that cover basic computer components (e.g., keyboard, mouse, etc.), an overview of the Internet (including explanations of URLs and websites), online communication (email, IM), and basic use of MS Office programs that can be accessed outside of the library. More advanced computing courses will include understanding computer hardware, software, the Internet and key search engines, and digital video/photography.

In addition to basic computer skills, QBPL will offer advanced computer classes instructing students on how to use their vast collections of online databases and business and finance tools, such as gathering demographic and industry data, global news coverage, industry analysis, and international company profiles. QBPL will partner with other City agencies (Dept for the Aging and the NYC Housing Authority) to provide training targeted towards older adults, focused on topics such as Internet safety and identifying reliable online health information. NYC Parks Dept will provide workshops for students in primary and secondary school, covering topics such as media, financial literacy, SAT and college prep.

The libraries will provide job readiness assistance, including training on digital resume writing, online job search, interview skills, and how to use library online job resources and databases. They will also offer advanced courses on understanding social media, managing information online, online storage and collaboration, among others.

## **Timeline of Queens Borough Public Library Wireless Implementation**

Jan/2001

- Setup 1<sup>st</sup> CISCO Air Bridge to connect our Central location with our Central Annex location for both Private & Public network– about 250 feet away
- Setup 2<sup>nd</sup> CISCO Air Bridge to connect our Central location with our Central Annex location for both NYC network - about 250 feet away

Jun/2003

- Setup 1<sup>st</sup> Wireless Lab for Laurelton's Juvenal Justice Grant; planned and installed several other labs over the next two years.

Jan/2005

- Started wireless implantation for customers- 10 branches done 1<sup>st</sup> year.
- Security was implemented using Evaluation Bluesocket; POMar/2005
- Users were authenticated using our patron database

Jun/2006

- Started purchase for Cisco Access Points the rest of the Queens Library locations to have public Wireless on the libraries main floors.

Jun/2006

- Started planning wireless pilot. Pilot involved creating wireless backhuls to bring data speeds up at our locations- Metro EVC was brought in as a better solution
- Pilot to let customers log in outside our locations- shelved due to E-rate rules.
- Survey- did RF spectrum analysis of all locations, Altitude, mounting assets, and GPS location also written up.

Dec/2006

- Receiving Quotes for wireless Surveys of all 63 branch libraries to have created a Wireless WAN and delivery wireless services outside the Branch Libraries. (see attached on five pilot sites)

Mar/2007

- Replace the Original Cisco Bridges connecting our Central Library to the Central Library Annex upgrading the service from 11 Mbps to 54 Mbps Bridge.

Jun/2007

- Sign contract with Jim Geier as a consultant to help in the Wireless project to create a Wireless WAN and wireless services outside the branch libraries; create an outline to the wireless RFP to implement a pilot project of at least 5 locations

Dec/2007

- Received outline from Jim Geier for Wireless RFP to create a Wireless WAN and wireless services outside the branch libraries

Nov/2008

- Do to budget issues Project stalled and the use of wireless outside of our facilities was not eligible under E-rate and we would have to pay for the internet separately to not jeopardize the e-rate funding.

Jun/2009

Expanded lab expansion- 19 more locations added wireless and roaming wireless classrooms.



## Queens Borough Public Library - Budget for Wireless Mesh Pilot Project

	Unit cost	Mounting Hardware	Installation	Licensing per Year	Qty	Sub Total	Electric/data	Total
<b>LI City - Surrounding area (Playground &amp; Park area)</b>								
802.11b/g Hotzone Access Points Triple Radio, Backhaul, Point-to-Point, Outdoor / Rugged Wireless Internet (MR58)	\$ 1,499	\$ 600	\$ 6,500	\$ 150	4	\$ 34,996	\$ 8,500	\$ 43,496
Antennias (pair, 3 per MR58)	\$ 99				12	\$ 1,188		\$ 1,188
Cabling - Low lost cabling	\$ 150				24	\$ 3,600		\$ 3,600
Power Injectors	\$ 99				16	\$ 1,584		\$ 1,584
ID2 Indoor Wireless Internet Access	\$ 149	100	500	\$ 150	4	\$ 3,596	\$ 4,000	\$ 7,596
OD2 Outdoor/Rugged Wireless Internet Access	\$ 199	100	1000	\$ 150	4	\$ 5,796	\$ 4,000	\$ 9,796
MR12 Single Radio Small Branch & Teleworker & indoor WLAN	\$ 399	100	1000	\$ 150	4	\$ 6,596	\$ 4,000	\$ 10,596
MR16 Double Radio, high performance indoor WLAN	\$ 649	100	1000	\$ 150	4	\$ 7,596	\$ 4,000	\$ 11,596
								\$ 89,452
<b>Flushing - Surrounding area(front steps/plaza &amp; bus area)</b>								
802.11b/g Hotzone Access Points Triple Radio, Backhaul, Point-to-Point, Outdoor / Rugged Wireless Internet (MR58)	\$ 1,499	\$ 600	\$ 6,500	\$ 150	4	\$ 34,996	\$ 8,500	\$ 43,496
Antennias (pair, 3 per MR58)	\$ 99				12	\$ 1,188		\$ 1,188
Cabling - Low lost cabling	\$ 150				24	\$ 3,600		\$ 3,600
Power Injectors	\$ 99				20	\$ 1,980		\$ 1,980
ID2 Indoor Wireless Internet Access	\$ 149	100	500	\$ 150	3	\$ 2,697	\$ 3,000	\$ 5,697
OD2 Outdoor/Rugged Wireless Internet Access	\$ 199	100	1000	\$ 150	3	\$ 4,347	\$ 3,000	\$ 7,347
MR12 Single Radio Small Branch & Teleworker & indoor WLAN	\$ 399	100	1000	\$ 150	3	\$ 4,947	\$ 3,000	\$ 7,947
MR16 Double Radio, high performance indoor WLAN	\$ 649	100	1000	\$ 150	3	\$ 5,697	\$ 3,000	\$ 8,697
								\$ 79,952
<b>Court Square - Surrounding area (Adjacent Park, external &amp; internal plaza)</b>								
802.11b/g Hotzone Access Points Triple Radio, Backhaul, Point-to-Point, Outdoor / Rugged Wireless Internet (MR58)	\$ 1,499	\$ 600	\$ 6,500	\$ 150	2	\$ 17,498	\$ 4,500	\$ 21,998
Antennias (pair, 3 per MR58)	\$ 99				6	\$ 594		\$ 594
Cabling - Low lost cabling	\$ 150				12	\$ 1,800		\$ 1,800
Power Injectors	\$ 99				12	\$ 1,188		\$ 1,188
ID2 Indoor Wireless Internet Access	\$ 149	100	500	\$ 150	4	\$ 3,596	\$ 4,000	\$ 7,596
OD2 Outdoor/Rugged Wireless Internet Access	\$ 199	100	1000	\$ 150	4	\$ 5,796	\$ 4,000	\$ 9,796
MR12 Single Radio Small Branch & Teleworker & indoor WLAN	\$ 399	100	1000	\$ 150	4	\$ 6,596	\$ 4,000	\$ 10,596
MR16 Double Radio, high performance indoor WLAN	\$ 649	100	1000	\$ 150	4	\$ 7,596	\$ 4,000	\$ 11,596
								\$ 65,164
<b>Central Library - Surrounding area (adjacent Bus station)</b>								
802.11b/g Hotzone Access Points Triple Radio, Backhaul, Point-to-Point, Outdoor / Rugged Wireless Internet (MR58)	\$ 1,499	\$ 600	\$ 6,500	\$ 150	4	\$ 34,996	\$ 8,500	\$ 43,496
Antennias (pair, 3 per MR58)	\$ 99				12	\$ 1,188		\$ 1,188
Cabling - Low lost cabling	\$ 150				24	\$ 3,600		\$ 3,600
Power Injectors	\$ 99				20	\$ 1,980		\$ 1,980
ID2 Indoor Wireless Internet Access	\$ 149	100	500	\$ 150	4	\$ 3,596	\$ 4,000	\$ 7,596
OD2 Outdoor/Rugged Wireless Internet Access	\$ 199	100	1000	\$ 150	4	\$ 5,796	\$ 4,000	\$ 9,796
MR12 Single Radio Small Branch & Teleworker & indoor WLAN	\$ 399	100	1000	\$ 150	4	\$ 6,596	\$ 4,000	\$ 10,596
MR16 Double Radio, high performance indoor WLAN	\$ 649	100	1000	\$ 150	4	\$ 7,596	\$ 4,000	\$ 11,596
								\$ 89,848
<b>Arverne - adjacent 3 housing buildings(small pilot, front area only of three buildings)</b>								
802.11b/g Hotzone Access Points Triple Radio, Backhaul, Point-to-Point, Outdoor / Rugged Wireless Internet (MR58)	\$ 1,499	\$ 600	\$ 6,500	\$ 150	4	\$ 34,996	\$ 8,500	\$ 43,496
Antennias (pair, 3 per MR58)	\$ 99				36	\$ 3,564		\$ 3,564
Cabling - Low lost cabling	\$ 150				72	\$ 10,800		\$ 10,800
Power Injectors	\$ 99				185	\$ 18,315		\$ 18,315
ID2 Indoor Wireless Internet Access	\$ 149	100	500	\$ 150	98	\$ 88,102	25000	\$ 113,102
OD2 Outdoor/Rugged Wireless Internet Access	\$ 199	100	1000	\$ 150	25	\$ 36,225	25000	\$ 61,225
MR12 Single Radio Small Branch & Teleworker & indoor WLAN	\$ 399	100	1000	\$ 150	25	\$ 41,225	25000	\$ 66,225
MR16 Double Radio, high performance indoor WLAN	\$ 649	100	1000	\$ 150	25	\$ 47,475	25000	\$ 72,475
								\$ 389,202
								<b>\$ 713,618</b>
<b>Bluesocket security/management</b>								
	\$ 45,000							\$ 45,000
<b>Filter</b>	\$ 65,000							\$ 65,000
<b>Consultant services</b>	\$ 32,000							\$ 32,000
								\$ 142,000
						<b>TOTAL</b>		<b>\$ 855,618</b>

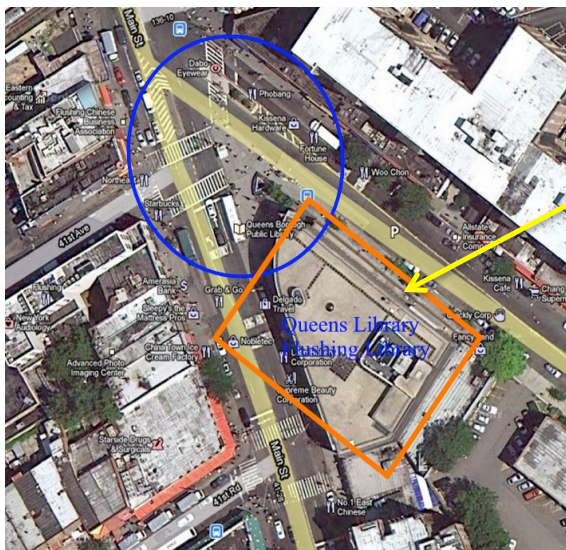
## Queens Borough Public Library Pilot Wireless Mesh Project Sites



### Central Library

Sections circled in blue are the areas in which the wireless mesh will be accessible by the public. This is the main library for the Queens Borough Public Library.

There is a bus depot (circled in blue) directly across the street where teens and adults take the bus home.



### Flushing Community Library

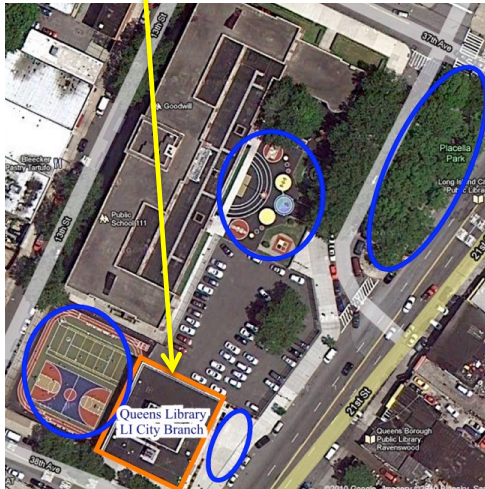
Sections circled in blue are the areas in which the wireless mesh will be accessible by the public.

Flushing Library is one of the largest circulating libraries and with the school and public plaza nearby, this is perfect spot of transient wireless users.

## Queens Borough Public Library Pilot Wireless Mesh Project Sites

### Long Island City Community Library -

Sections circled in blue are the areas in which the wireless mesh will be accessible by the public.



### Court Square Community Library

Sections circled in blue are the areas in which the wireless mesh will be accessible by the public and those that are outside the Citicorp building.



### Arverne Community Library

Sections circled in blue are the areas in which the wireless mesh will be accessible by the public.

For this pilot only the first three buildings will have direct wireless access. QBPL is currently in conversation with the NYC Housing Authority to expand the project to all seven buildings.

